

Bio-Statistics

Programmes

Master of Applied Statistics

Master of Bio-Statistics

M.Sc. in Applied Statistics

M.Sc. in Bio-Statistics

Postgraduate Diploma in Applied Statistics

Master of Philosophy (M.Phil.)

Doctor of Philosophy (Ph.D.)

About the Board of Study

The Board of Study (BS) was established in 1997 with a vision to achieve excellence in postgraduate teaching and research in Applied statistics and Biostatistics. The Board educates its postgraduate students to undertake independent research in the areas of applied statistics and biostatistics to promote the correct use of statistics in education, decision making and policy matters, which will eventually lead to the sustainable development of the country. Most students of various disciplines follow certain courses of this Board to gain knowledge in statistics which is an essential component for research scholars. With the establishment of the BS a landmark has been reached in the development and use of statistics in the country, which has been a long felt need. The BS offers degrees relevant to the local context. Many students are from the medical profession as it opens application of statistics in Medicine too. To disseminate the knowledge, the BS offers many short courses on the application of Statistics for various sectors of the government, non-government and private sector organizations.

Recent Research

- Statistical methodology for classification
- Modeling world market prices
- Construction of composite indices
- Multivariate categorical data analysis techniques for detecting disagreement
- Modelling trends in climate variables
- Modelling disease epidemics
- Survival analysis techniques for disease control monitoring programs

Master of Applied Statistics

Master of Bio-Statistics

No. of Credits: 30
Minimum Programme Duration: 2 semesters

Entry Requirements: Bachelors Degree or equivalent acceptable to the Senate of the University of Peradeniya.

Overview

The Master of Applied Statistics and Bio-Statistics at the PGIA welcomes student from a broad range of disciplines to follow intensive degrees strengthening their theoretical and applied statistical knowledge and skills. The courses are taught by a well experienced and highly qualified teaching panel.

Key features

Statistics is required in all the disciplines and professions. Therefore, the Masters courses are designed to provide a comprehensive and in depth coverage in abroad range of subjects with a wide range of compulsory and optional subjects to cater to the interests of applicants to acquire sufficient skills to tackle the challenges of modern statistics.

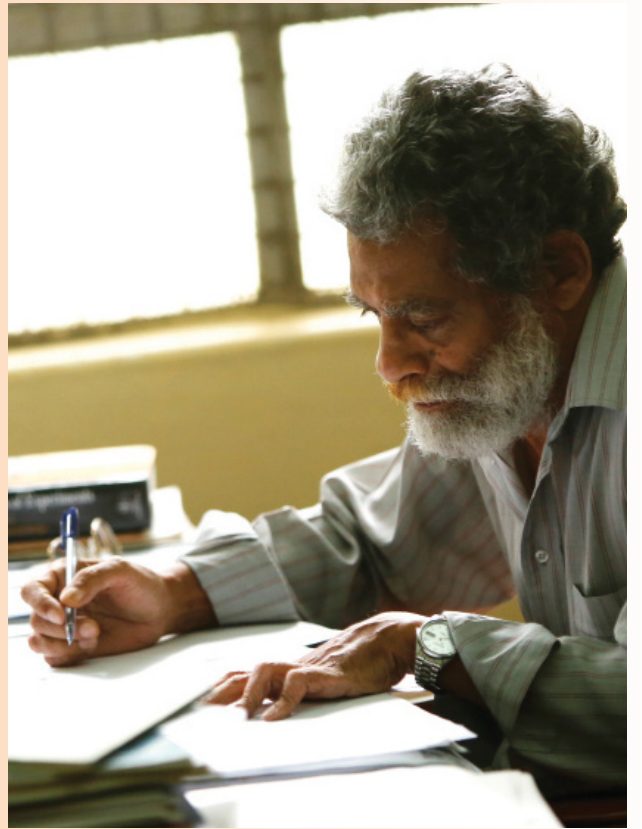
List of Courses - M.Sc. in Applied Statistics

Code	Title	Credits	Option
First Semester			
ST 5101	Calculus and Matrix Algebra	2	Prerequisite
ST 5102	Basic Statistics	2	Prerequisite
ST 5103	Data Analysis Using Statistical Software	3	Compulsory
ST 5104	Sampling Techniques	2	Compulsory
ST 5105	Time Series Analysis	2	Compulsory
ST 5151	Statistical Theory	4	Compulsory
ST 5155	Design and Analysis of Experiments	2	Compulsory
ST 5198	Directed Study	5	Compulsory
ST 5199	Seminar	1	Elective
ST 5106	Computer Programming	2	Elective
ST 5152	Exploratory and Robust Data Analysis	2	Elective
ST 5153	Modelling Binary Data	2	Elective
ST 5154	Statistical Genetics	2	Elective
ST 6101	Vector Analysis	2	Elective
ST 6102	Measure Theory	2	Elective
ST 6103	Group Theory	2	Elective
ST 6104	Graph Theory	3	Elective
ST 6151	Variance Components Estimation	2	Elective
Second Semester			
ST 5203	Regression Analysis	2	Compulsory
ST 5204	Nonparametric Statistics	2	Compulsory
ST 5205	Categorical Data Analysis	3	Compulsory
ST 6202	Multivariate Statistical Methods	3	Compulsory
ST 5201	Advanced Calculus	2	Elective
ST 5251	Statistical Methods for Analysis of Spatial Data	3	Elective
ST 5252	Design and Analysis of Epidemiological Studies and Clinical Trials	2	Elective
ST 5253	Crop Experimentation	1	Elective
ST 5254	Animal Experimentation	2	Elective
ST 5255	Statistical Quality Control	2	Elective
ST 6201	Linear Models	3	Elective
ST 6203	Stochastic Processes	2	Elective
ST 6251	Statistical Computing	2	Elective
ST 6253	Statistical Methods for Behavioural Sciences	2	Elective
ST 6254	Advanced Design and Analysis of Experiments	2	Elective

Please turn over for list of courses of the M.Sc. in Bio-Statistics

List of Courses - M.Sc. in Bio-Statistics

Code	Title	Credits	Option
First Semester			
ST 5101	Calculus and Matrix Algebra	2	Prerequisite
ST 5102	Basic Statistics	2	Prerequisite
ST 5103	Data Analysis Using Statistical Software	3	Compulsory
ST 5151	Statistical Theory	4	Compulsory
ST 5153	Modeling Binary Data	2	Compulsory
ST 5155	Designs and Analysis of Experiments	2	Compulsory
ST 5198	Directed Study	5	Compulsory
ST 5199	Seminar	1	Elective
ST 5104	Sampling Techniques	2	Elective
ST 5105	Time Series Analysis	2	Elective
ST 5106	Computer Programming	2	Elective
ST 5152	Exploratory and Robust Data Analysis	2	Elective
ST 5154	Statistical Genetics	2	Elective
ST 6101	Vector Analysis	2	Elective
ST 6102	Measure Theory	2	Elective
ST 6103	Group Theory	2	Elective
ST 6104	Graph Theory	3	Elective
ST 6151	Variance Components Estimation	2	Elective
Second Semester			
ST 5203	Regression Analysis	2	Compulsory
ST 5204	Nonparametric Statistics	2	Compulsory
ST 5205	Categorical Data Analysis	2	Compulsory
ST 5252	Design and Analysis of Epidemiological Studies and Clinical Trials	2	Compulsory
ST 5201	Advanced Calculus	2	Elective
ST 5251	Statistical Methods for Analysis of Spatial Data	3	Elective
ST 5253	Crop Experimentation	1	Elective
ST 5254	Animal Experimentation	2	Elective
ST 5255	Statistical Quality Control	2	Elective
ST 6201	Linear Models	3	Elective
ST 6202	Multivariate Statistical Methods	3	Elective
ST 6203	Stochastic Processes	2	Elective
ST 6251	Statistical Computing	2	Elective
ST 6253	Statistical Methods for Behavioural Sciences	2	Elective
ST 6254	Advanced Design and Analysis of Experiments	2	Elective



Postgraduate Diploma in Applied Statistics

No. of Credits: 25

Minimum Programme Duration: 2 semesters

Entry Requirements: Bachelors Degree or equivalent

acceptable to the Senate of the University of Peradeniya.

Overview

Board of Study in Bio-Statistics at the PGIA offers the Postgraduate Diploma in Statistics each year for graduates of various disciplines. This has created an excellent opportunity for professionals, recent graduates and managers to grasp both theoretical and practical aspects of a wide range of statistical applications within a very short time (minimum of nine months).

Key features

The course provides an introduction to the statistical concepts and methods relevant to data gathering and analyses in a wide variety of research areas including biological and social sciences, and the lessons are conducted using real world examples. Upon successful completion of the course students will be able to apply the statistical concepts and methods to which they have been introduced.

Code	Title	Credits	Option
First Semester			
PGD 5101	Basic Mathematics	2	Prerequisite
PGD 5102	Basic Statistics	2	Prerequisite
PGD 5103	Experimental Techniques	2	Compulsory
PGD 5104	Regression Analysis	2	Compulsory
PGD 5105	Sampling Techniques	2	Compulsory
PGD 5106	Use of Statistical Software	2	Compulsory
Second Semester			
PGD 5201	Categorical Data Analysis	2	Compulsory
PGD 5202	Non Parametric Statistics	2	Compulsory
PGD 5203	Multivariate Data Analysis	2	Compulsory
PGD 5204	Binary Data Analysis	2	Compulsory
PGD 5208	Seminar/Independent Study	2	Compulsory
PGD 5205	Studies in Medical Research Investigations	2	Elective
PGD 5206	Statistical Applications in Business	2	Elective
PGD 5207	Special Topics	1	Elective



Students at a Survey Design short course. A number of short courses are offered by the Board of Study each year.



There is a magic in graphs. The profile of a curve reveals in a flash a whole situation — The life history of an epidemic, a panic, or an era of prosperity. The curve informs the mind, awakens the imagination, convinces.

Henry D. Hubbard